

### **Kuraray at JEC World 2020: Ultra-strong and heat-resistant, yet light as a feather**

Speciality chemicals producer Kuraray to exhibit high-performance yarn that is five times stronger than steel at JEC World 2020 (Hall 6, Booth F83)

Hattersheim/Paris, February 2020. Composites play an important part in ensuring high efficiency, mechanical strength and low weight in electric vehicles, modern planes and high-tech satellite technology. Kuraray, a leading global producer of speciality chemicals, is exhibiting its PA9T, KURAFLEX™, Vectran™ and VECRUS™ brands of high-performance components for composites at JEC World 2020 on May 12 - 14, 2020 (Hall 6, Booth F83). Materials like PA9T heat-resistant polyamide fibre can be used to produce composites for automotive components with high mechanical strength, coupled with heat and chemical resistance. Another example is Vectran™ for feather-light structures such as professional racing bicycles. Relative to its weight, this high-performance multifilament yarn is five times stronger than steel.

“Composites are the key to developing innovative and sustainable new technologies, such as electric vehicles,” says Hidekazu Taniguchi, Head of BU Industrial Fibers. “Technical potential can be utilised better with our innovative fibres and non-woven fabrics, resulting in higher efficiency. For example, at JEC World we are exhibiting our multifilament yarn, Vectran™. Its unique tensile strength makes it suitable for exceptionally lightweight structures such as professional racing bikes.” Kuraray, a leading producer of speciality chemicals, is presenting its wide range of fibres, resins and non-woven fabrics at JEC World in Paris, the world’s leading composites show, on **May 12 - 14, 2020**. Kuraray’s experts will be on hand at **Booth F83 in Hall 6** with information on the following products:

- **PA9T** - Thanks to its the heat and chemical resistance, this high-performance polymer is used in electronic and electrical device, and auto motive parts.
- **KURAFLEX™** - This ultra-fine non-woven fabric is an ideal matrix material for reinforced thermoplastic composites
- **Vectran™** - This lightweight LCP fibre gives composites for top-performing sports equipment very high mechanical stability
- **VECRUS™** - This LCP non-woven fabric has low moisture absorbency and excellent dielectric properties, making it ideal for circuit boards.

### **Heat and chemical-resistant: fibres for demanding applications**

At JEC World 2020, Kuraray is exhibiting PA9T, an extremely resistant fibre material for the most demanding applications. Thanks to its outstanding resistance to heat and chemicals, PA9T is used as a separator paper in high-performance battery cells, for example for electric vehicles. In combination with fibreglass and carbon fibre materials, this semi-aromatic polyamide can be used in the manufacture of advanced laminates and hybrid non-wovens. Applications include components for automotive, aviation and aerospace industries. Kuraray also supplies this polymer material as a thermoplastic filament for pultrusion. Dimensional stability and low water absorbency make PA9T ideal for electrical and electronic components.

### **Ultra-fine non-woven fabric for strong composites**

**KURAFLEX™** melt-blown non-woven is a very thin fabric with an ultra-fine structure. That makes it an ideal matrix material for reinforced thermoplastic composites and carbon fibre reinforced plastics. Kuraray markets **KURAFLEX™** in various grades made from different polymers - for example, based on liquid crystal polymer, thermoplastic polyurethane (TPU) or styrene ethylene propylene styrene (SEPS). Users therefore have access to customised products with features such as high impact resistance or vibration damping properties.

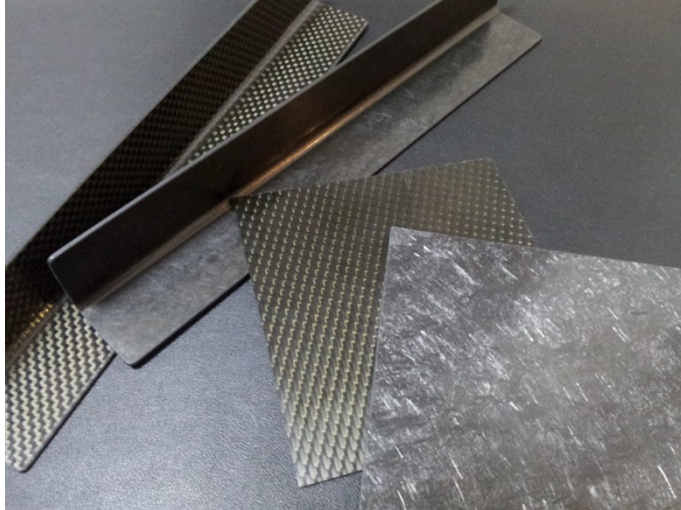
### **Five times stronger than steel - for high-strength composites**

Visitors to Kuraray's booth can also find information on the specific properties of **Vectran™** multifilament yarn. Spun from liquid crystal polymer (LCP), this fibre has exceptional strength and rigidity relative to its weight: **Vectran™** is five times stronger than steel and ten times stronger than aluminium. In addition, **Vectran™** has excellent mechanical strength, is slash and abrasion-resistant, and has excellent dimensional stability - ideal for use in high-performance sports equipment such as racing bikes and professional golf equipment. LCP fibres retain their dimensional stability when exposed to heat. Unique dielectric properties make them an excellent choice for use in the electronics industry. Moreover, **Vectran™** is used in the outer shell of aircraft and spacecraft.

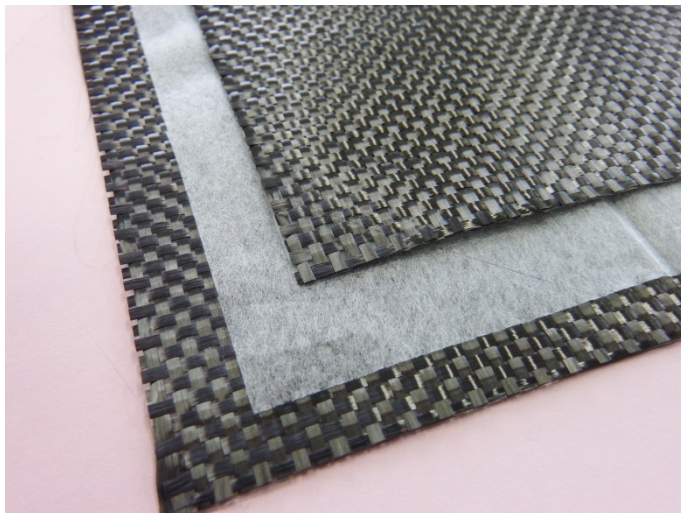
### **An ultra-fine non-woven for lightweight, fire-proof circuit boards**

The fibres in **VECRUS™** non-woven fabrics are melt-blown from liquid crystal polymer, which gives them a particularly fine structure. These non-wovens have outstanding heat-resistance and low moisture absorbency. Thanks to its low weight, **VECRUS™** can be used in the manufacture of heat resistant panels and ultra-lightweight fibre reinforced plastic sheets. Main applications include the electrical and electronics industry. Excellent electric insulation, heat resistance and impregnating properties make this LCP non-woven an optimum choice for printed circuit boards.

Captions/source of photos: Kuraray



[Foto 1] Powerful material pairing for high demands: Composite materials play an important role in applications where parts with immense load-bearing capacity and low weight are required. At JEC World 2020 in Paris, Kuraray will be showcasing how the high-performance plastic and fibre materials of its PA9T, Kuraflex, Vectran and Vecrus brands enable the manufacture of sophisticated components for aerospace, automotive and professional sports.



[Foto 2] Strong fibers and nonwovens for individual requirements: Kuraray's high-performance Kuraflex and Vecrus nonwovens are given an extremely fine fiber structure by the melt-blow process and are available in a variety of plastic materials. At JEC World 2020 in Paris, Kuraray will be demonstrating how these materials facilitate composite materials with specific properties - such as heat-resistant sheets for the electrical industry.

### **About Kuraray**

Established in 1991, Kuraray Europe GmbH is based in Hattersheim, near Frankfurt am Main, Germany. In 2018 the company generated annual sales of EUR 690 million. It has approximately 700 employees in Germany at its sites in Hattersheim, Frankfurt and Troisdorf. Kuraray is a global speciality chemicals company and one of the largest suppliers of industrial polymers and synthetic microfibres for many sectors of industry. Examples are KURARAY POVAL™, Mowital®, Trosifol® and CLEARFIL™. Kuraray Europe also has around 200 employees at six other European sites. They are also working on the development and application of innovative high-performance materials for a wide

range of sectors, including the automotive, paper, glass and packaging industries, as well as for architects and dentists.

Kuraray Europe is a wholly owned subsidiary of the publicly listed Kuraray Co., Ltd., which is based in Tokyo, Japan, and has more than 10,000 employees worldwide and sales of EUR 4,8 billion.

The press release and photos are also available on our website:

<https://www.kuraray.eu/company/media>

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